

ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form is available at www.mnplan.state.mn.us. *EAW Guidelines* will be available in Spring 1999 at the web site. The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for — but should not complete — the final worksheet. If a complete answer does not fit in the space allotted, attach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title** Boise Cascade 48 MW Cogeneration Project

2. Proposer	Boise Cascade	3. RGU	Minnesota Environmental Quality Board
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4. **Reason for EAW preparation** (check one)
EIS scoping x Mandatory EAW Citizen petition RGU discretion
Proposer volunteered

If EAW or EIS is mandatory give EQB rule category subpart number and subpart name, MN Rules part 4410.4300, Subpart 3, Electric Generating Facilities

5. **Project location** County: Koochiching City/Township International Falls
South 1/2 Section 27 Township 71N Range 24W

Attach each of the following to the EAW:

- County map showing the general location of the project;
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable);
- Site plan showing all significant project and natural features.

6. Description

a. Provide a project summary of 50 words or less to be published in the *EQB Monitor*.

This project will replace two existing 4 megawatt (MW) steam turbine generators (STG) with a new 36 MW STG and rebuild another existing 6.25 MW STG, increasing its output to 11 MW. The project will be constructed entirely within the existing facility and will not add any new boilers, buildings, or power transmission lines.

b. Give a complete description of the proposed project and related new construction. Attach additional

sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

The mill has an electrical demand of about 67 MW. Currently, about 35% of this demand is self-generated by the mill's steam turbine generators (STGs). Steam needed for the papermaking process is generated at high pressure and first passed through STGs before being consumed in the process (cogeneration). Another 10% comes from the mill's hydro generation. The remaining power requirement, about 54% (or around 36 MW), is purchased from the local utility, Minnesota Power (MP). MP's principal energy source for generation is coal.

The existing steam capacity of the mill exceeds the electric generating capacity of its STGs. The steam that cannot pass through the turbines to otherwise make more power is instead passed through pressure reducing valves before going to the process. Additional STG capacity will allow for increased cogeneration, without the need for increased steam capacity. The plant has the capacity to produce more steam than can be used for either process or power generation. A diagram of the mill's existing power production system is shown in Figure 6-1.

This project proposes to install added cogeneration capacity to match the mill's steam requirement. This capacity addition will be contained completely within the existing Turbine Room building, which houses the existing STGs. There will be no modifications to the size of this building to accommodate this project. There will be no additional power transmission lines resulting from this project.

The project will retire the mill's existing 75 year old #1 and #2 STGs. Each has a 450 psi inlet and is rated at 4 MW (5 MVA). A new 36 MW (44 MVA) unit would be installed in the same building in place of the existing units. The new unit would have a 1290 psi inlet pressure. To accommodate this higher turbine pressure, the pressure of the mill's Recovery Boiler would be raised from the existing 1000 psi to 1290 psi. The steam from this boiler and the excess steam from the mill's other 1290 psi power boilers would feed this new STG. The steaming rate of the Recovery Boiler would remain the same. All power wiring and turbine auxiliary equipment will be contained within the existing building, just as the existing wiring and equipment are now. The existing STG foundation would be modified and reused. Additional foundation piling within the building will be needed.

In addition, the project will rebuild the mill's existing #5 STG from 6.25 MW (7.5 MVA) to about 11 MW (11 MVA). The inlet pressure to the turbine would remain the same. The power wiring and turbine auxiliary equipment would also be replaced. Again, all the power wiring and auxiliary equipment for the rebuilt STG would be contained within the existing building, as is the case with the existing STG. The existing STG foundation would be modified and reused. If necessary, additional foundation piling may be installed within the existing building.

The existing switchgear for both new turbines would be replaced in the existing switchgear room adjacent to the turbines and inside the Turbine Room building. The switchgear room building size will not be changed to accommodate the new switchgear.

A diagram of the proposed mill power production system is shown in Figure 6-2. Figure 6-3 shows a plan view of the existing mill layout, with the Turbine Room noted. Figure 6-4 shows a plan view of the Turbine Room with the existing STGs. Figure 6-5 shows the same view with the rebuilt and new STGs.

This project will reduce the mill's dependence on purchased fossil-fired power from an average of 36 MW to 7 MW. Process water use and effluent treatment flow will not increase. The mill's existing power boilers will supply the increased thermal requirement of the increased generation. It is important to emphasize that the steaming rate of the boilers will only be increased by the added thermal requirement of the increase in cogenerated power. The proposed boiler increases are well within their currently permitted limits. Fuel consumption of natural gas will increase by 2,500 MCF/day. This increase is solely due to the thermal requirement of the increased power generation. There will be no other fuel increase.

Detailed engineering and procurement for the project is planned to start during the 3rd quarter of 2002. Construction for the rebuild of the #5 STG is planned for 1st quarter 2003, with startup in the 2nd quarter of 2003. Construction for the new turbine is planned for 3rd quarter 2003 with startup the 4th quarter 2003.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The purpose of this project is to increase the mill's energy self-sufficiency, overall resource efficiency and reduce cost.

This project will not be carried out by any governmental unit.

d. Are future stages of this development including development on any outlots planned or likely to happen? __Yes No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

e. Is this project a subsequent stage of an earlier project? __Yes No

If yes, briefly describe the past development, timeline and any past environmental review.

7. Project magnitude data

Please note that the following square footage areas are for existing buildings. These existing buildings will remain intact. *Their dimensions will not change.* The new and rebuilt turbines will be constructed within the existing buildings with only minor building modifications (new doorways, stairs, turbine and generator foundation modifications, etc.). *There will be no expansion to boundaries of the company property.*

Total project acreage

Number of residential units: N/A

Commercial, industrial or institutional building area (gross floor space): total square feet 15,108

TABLE 7-1

Areas of Specific Uses
Cogeneration Project
Boise Cascade, International Falls MN

Type of Use	Area (square feet)
New Turbine	7,224
Rebuilt Turbine	3,700
Control Room	884
Switchgear Room	3,300

If over 2 stories, compare to heights of nearby buildings:

The existing Turbine Room building height is 37 feet. It will not change with this project. The height of the building directly to the west (Recovery Boiler Building) is 92 feet. The height of the building directly to the east (Boiler House Building) is 73 feet. This is the existing building; no new outside construction is planned for this project.

8. **Permits and approvals required.** *List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.*

The Cogeneration Project replace existing steam turbine generators with new steam turbine generators. Steam turbine generators produce no air emissions. Therefore this project will not increase air emissions beyond the currently permitted levels. The Minnesota Pollution Control Agency has determined that no air permit amendment is needed. In addition, MPCA staff have determined that a Prevention of Significant Deterioration (PSD) review and associated air quality analysis is not needed. While electricity generated by the project may, on occasion, be sold the amount will be below the amount, which would trigger applicability of the Acid Rain Program.

A copy of the Minnesota Pollution Control Agency’s determination is included as Figure 8-1.

TABLE 8-1

Permits and Approvals that Require Issuance or Re-issuance
Cogeneration Project
Boise Cascade, International Falls MN

Unit of Government	Type of Permit or Approval	Status
Minnesota Environmental Quality Board	Environmental Assessment Worksheet (EAW)	EAW submitted
Minnesota State Board of Electricity	Certification for connection by utility	Application made when actual construction begins

9. **Land use.** Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

Project Site

The Boise Cascade Mill complex is about 74 acres in size and is located along the south bank of the Rainy River in Koochiching County. Operation of the International Falls pulp and paper mill dates back to the early 1900s. Boise Cascade acquired the pulp and paper operations at International Falls in 1965. The Mill site currently contains two paper mills, Kraft pulp mill, sheet finishing and converting plant, bleach plant, warehouse and shipping facilities. Additional facilities found onsite include a chemical recovery system, water purification plant, oxygen plant, wastewater treatment plant, power plant, and hydroelectric plant. Additional building space was added in 1989/1990. This included a new paper machine and bleach plant, a new lime kiln, and a chemical unloading and storage area. An existing warehouse was expanded in 1992.

The proposed project will not include the construction of any new buildings or structures. The planned projects are compatible with the current land use at the Mill site.

There have been no reported releases of major liquid or solid hazardous material that may result in chemical contamination of soils on the Boise Cascade Mill complex. All storage tanks are aboveground and will not be affected as a result of the proposed project.

Adjacent Land Use

Land uses adjacent to the Boise Cascade Mill Complex consist of open water, residential, commercial, and parkland areas. The Rainy River, which offers sport fishing and other recreational opportunities lies along the northern perimeter of the Mill site. Boat ramps along the river provide public access for these recreational uses. A hydroelectric dam is located adjacent to the Mill between upper and lower portions of the Rainy River.

The commercial area of the City of International Falls is located to the south and east of the main Mill site. Small commercial buildings, parking areas, and a few private residences are found within this area. Smoky Bear Park is also along the southern side of the Mill site. This small local park offers benches, tennis courts, and open space for recreational use. To the west of the Mill site is an area of high density residential land use. Single-family homes are generally found within this area.

Proposed project activities at the Boise Cascade Mill site will not include the construction of any new structures or the acquisition of any new lands. Future operations will be consistent with previous activities at the site. The future Mill operations will not affect onsite conditions, road access, or the use of immediately adjacent land areas.

10. **Cover types.** Estimate the acreage of the site with each of the following cover types before and after development:

Over three-fourths of the Mill site consists of buildings and other impervious surfaces. Some vegetated areas are found within the Mill site; these lie primarily along the northwestern border. Cover types of the Boise Cascade Mill site (as reported by Boise Cascade in the 1997 EAW) are described in Table 10-1. Current cover type distributions are assumed to be consistent with these conditions, as no new construction activities which would have altered existing cover types have occurred since that time.

TABLE 10-1
 Mill Site Cover Type Distributions
 Cogeneration Project
 Boise Cascade, International Falls MN

Cover Type	Before (acres)	After (acres)
Miscellaneous Vegetation	26.5	26.5
Cropland	0.0	0.0
Wetland	0.0	0.0
Impervious Surface	59.2	59.2
TOTAL	85.7	85.7

11. Fish, wildlife and ecologically sensitive resources

a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

Aquatic Resources

The proposed project is not anticipated to have any impact on aquatic resources or recreational fishing activities.

The Rainy River is the major aquatic resource associated with the Boise Cascade Mill at International Falls. The river supports both residential and migratory fish. The dam at International Falls presents a barrier to upstream fish movements in the river. Downstream of the dam (the area affected by Boise Cascade water withdrawals and discharges) the river supports a game fish population that utilizes 86 miles of river between International Falls and Lake of the Woods. This stretch of the river is a major sport-fishing area for local residents in the spring and for tourists in the summer and fall (Friedl 1995).

Other forms of aquatic life inhabiting the Rainy River include mussels, insects, invertebrates, crustaceans, amphibians, and reptiles. The proposed project is not expected to impact these resources.

Project-related impacts to aquatic resources are not anticipated. Activities associated with the proposed Cogeneration Project will not adversely impact the aquatic communities in the Rainy River. Surface water runoff onsite will not increase as a result of the project and will continue to be processed via the existing wastewater treatment system. No excavation or clearing will occur on the riverbank or at the intake or outfall structures; therefore, sedimentation to the river will not occur.

The proposed project will have no effect on the mill's discharge of conventional, non-conventional, toxic and priority pollutants or on receiving water quality or aquatic life. All regulated parameters will remain well within the limits of Boise Cascade's NPDES permit (Permit No. MN0001643). Rainy River flow ensures rapid and complete dilution of the effluent. At a 7Q₁₀ river flow of 2600 MGD and effluent discharge rate of 25 MGD, a dilution ratio of 104 will be realized.

In summary, the proposed Cogeneration Project at the Boise Cascade Mill is not expected to adversely affect aquatic life in the Rainy River below International Falls. The project will have no impact on site runoff. There will be no increase in temperature, Biochemical Oxygen Demand (BOD), or Total Suspended Solids (TSS) loadings to the river. Since the aquatic communities in the Rainy River will not be altered by the project, indirect impacts on wildlife such as waterfowl, bald eagles, mink, muskrat, and beaver (which utilize aquatic resources for food and cover) are not anticipated.

Because no adverse effects are anticipated, no mitigation is planned for aquatic resources. Plant discharge will not have any adverse effects on aquatic resources and will remain within the limits of Boise Cascade's NPDES Permit. Compared to the overall flow of the Rainy River, the effluent volume is small. The Mill effluent is discharged to the river through a diffuser, which maximizes mixing, and dilution.

Terrestrial Resources

Wildlife habitat within the Boise Cascade Mill site is limited. Small areas of brush are found within the site, but disturbances are relatively high due to Mill operations. Significant breeding habitat or feeding areas are not present within the site. However, mink, bear, foxes, deer, raccoon, pigeons, ravens, woodchucks, and muskrats have been observed in the area. Adjacent areas such as those along the Rainy River may provide additional habitat for waterfowl and small mammals. Waterfowl species such as scaup, goldeneye, merganser, and mallard are known to utilize the Rainy River both as nesting areas and wintering habitat. Other birds (including birds of prey) such as osprey, bald eagles, herons, and pelicans may be found along the river during the various seasons.

As the proposed project is not anticipated to include any new development, impacts to the limited habitat onsite or immediately adjacent to the site are not expected.

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site? x Yes No

If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: . Describe measures to minimize or avoid adverse impacts.

The Minnesota Department of Natural Resources Natural Heritage and Nongame Research Program (Ms. Sarah Hoffman) was contacted by Boise Cascade staff (Allan Meadows) by telephone on December 7, 2001. Based on this conversation and a review of the Natural Heritage database, it was determined that, while two species of state-listed fish exist in Rainy River, the proposed project would have no adverse impacts on them.

12. **Physical impacts on water resources.** *Will the project involve the physical or hydrologic alteration — dredging, filling, stream diversion, outfall structure, diking, and impoundment — of any surface waters such as a lake, pond, wetland, stream or drainage ditch? Yes x No*
If yes, identify water resource affected and give the DNR Protected Waters Inventory number(s) if the water resources affected are on the PWI: . Describe alternatives considered and proposed mitigation measures to minimize impacts.

The proposed project will not require any dredging, filling, stream diversion, outfall structure, diking, or impoundment of any surface water.

13. **Water use.** *Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? Yes x No*
If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

No increase of water appropriation over the existing DNR water appropriation permit is required.

No groundwater is used for any of the Mill's operations.

All water used at the existing Mill is withdrawn from the Rainy River upstream from the International Falls dam. The Rainy River is a large body with a recorded average flow of 5,886 million gallons per day (MGD) (USGS 1964). The 7-day low flow over 10 years, 7Q₁₀, is 4,020 cubic feet per second, or 2,600 MGD (Beak 1990).

The current DNR Water Appropriation Permit (Permit No. 81-2065, as amended March 7, 2000) allows Boise Cascade to appropriate water at a rate not to exceed 42,000 gallons per minute (gpm) (3.6 MGD) from location No. 1 Raw Water and 22,000 gpm from Location No. 2 Filtered. The total amount of water appropriated shall not exceed 15,000 million gallons per year from location No. 1 Raw Water and 10,000 million gallons per year from location No. 2 Raw Water, for a total of 25,000 million gallons per year. Current consumption rate totals about 18,800 million gallons per year, or about 75 percent of the appropriation allowed by the permit.

The existing Mill has a maximum pumping capacity of of 70 MGD if all pumps operating simultaneously, and a yearly average water use of 40 MGD raw water. Of this total, a daily maximum of 40 MGD and a yearly average of 16 MGD is screened and pumped directly to the Mill for uses not requiring treated water. A separate system supplies a daily maximum of 30 MGD and a yearly average of 24 MGD of treated water for the International Falls and Fort Frances mills. In this system raw water is screened, coagulated with alum, clarified in sedimentation tanks, and filtered through mixed media filters. The treated water is then chlorinated and stored in a quiescent tank or clearwell .Water from the clearwell is pumped to the Fort Frances mill (daily maximum of 14 MGD and a yearly average of 11 MGD), International Falls Mill (daily maximum of 14 MGD and a yearly average of 11 MGD), and a demineralizer plant (daily maximum of 2.0 MGD and a yearly average of 1.4 MGD). At the demineralizer, the water is treated in ion-exchange units to remove scale-forming minerals. This water is used primarily as high pressure boiler feedwater makeup.

For the proposed Cogeneration Project, the water supply and treatment system will remain unchanged. The existing capacity of the water supply system will not be changed, therefore there will be no change in the daily maximum water usage.

Demand is projected to continue near current levels and within the allowed water appropriation; therefore, no project-related impacts are anticipated.

The existing water supply system is more than adequate for the proposed project.

14. **Water-related land use management district.** *Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? Yes No*
If yes, identify the district and discuss project compatibility with district land use restrictions.

Shoreland zoning districts are determined by the local unit of government and MDNR guidelines or rules. Shoreland zoning districts represent minimum standards unless the local unit of government has chosen to make the standards more restrictive.

The current shoreland zoning classification for the area adjacent to the Boise Cascade facility is "General Development" under Section 11.50 of the City of International Falls Land Use Regulation (Skallman 1995).

The current Federal Emergency Management Agency (FEMA) Flood Hazard Boundary Map for the City of International Falls is shown as Figure 14-1. The Mill site contains about 8.6 acres of floodplain. This area, along the northwest border with the Rainy River, is steep brush covered land. It is underlain by highly erodible clayey soils.

No development, construction, or clearing activities will take place within the floodplain area that would result in alteration of the existing topography or surface drainage patterns; therefore, no impacts will result from the proposed project. The project is not expected to alter floodplain boundaries or flood storage capacity. Therefore no mitigative measures are needed.

The segment of the Rainy River located within the limits of the City of International Falls has no special designations relating to wildlife characteristics; unique scientific or ecological significance; or exceptional recreational value at the federal, state, or city levels. In the project area, the Rainy River is not classified by the Minnesota DNR as a wild and scenic river, nor as a state-designated canoe and boating route (Fecht 1995).

The project activities are not within state or federal wild & scenic river land use districts, so no impacts to these resources will occur.

15. **Water surface use.** *Will the project change the number or type of watercraft on any water body? Yes No*
If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

16. **Erosion and sedimentation.** *Give the acreage to be graded or excavated and the cubic yards of soil to be moved:*

acres N/A ; cubic yards N/A . Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

The entire Cogeneration project will be constructed inside existing buildings; no grading or excavation is planned. As a result, no erosion or sedimentation issues are anticipated.

Erosion and sedimentation have not been a problem at the Boise Cascade site because of lack of topographic relief, maintenance of ground cover on open areas and settling of surface runoff in the Mill's wastewater treatment system.

17. Water quality: surface water runoff

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

Stormwater from the Boise Cascade site is regulated under MPCA Permit No: MN G610000. A stormwater pollution prevention plan was developed for the site in October of 1993. This plan contains a description of potential sources, existing management and treatment of stormwater runoff, best management practice identification, schedule for plan implementation, and maintenance of the Stormwater Pollution Prevention Plan.

Stormwater runoff on Boise Cascade's International Falls Mill is collected onsite in a network of catch basins and directed to either the municipal storm drain or Boise Cascade's wastewater treatment plant.

Runoff from the southwest portion of the Mill site, encompassing the area now occupied by the new paper machine, bleach plant, warehouse, and much of the frontage to Second Street, is directed to a city storm sewer. This southwest portion of the site consists primarily of impervious rooftops and paved surfaces, and the runoff does not come into contact with process materials. The city storm sewer is located under Second Street and eventually discharges to the Rainy River at a location downstream of the Mill discharge. The proposed project will not change the quantity or quality of stormwater runoff to the municipal system.

Runoff from the remaining Mill area is collected and discharged to the onsite wastewater treatment plant. It is estimated that the annual average stormwater flow treated onsite is about 0.2 MGD. Stormwater from the remaining Mill area will continue to be handled as before. Runoff will be collected by onsite catch basins and directed to the wastewater treatment plant. The proposed project will not change the quantity or quality of stormwater runoff discharged through the Mill wastewater treatment system.

Stormwater runoff at the wood process center is currently collected in ditches and then held in a settling pond where suspended solids are removed by sedimentation. The runoff is then discharged to the Rainy River upstream of International Dam. No changes are planned for this stormwater management system. The proposed project will not change the quantity or quality of stormwater runoff discharged from the wood process center.

This description of the characteristics of stormwater and runoff handling is for the operation of the plant overall. This project does not change any of those characteristics.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

The International Falls Mill is located on the south bank of the Rainy River adjacent to International Falls Dam at Rainy River Mile (RRM) 83. The Rainy River flows from east to west, originating at Rainy Lake (RRM 86), and eventually drains into Lake of the Woods (RRM 0). Over this reach, the river forms the International Boundary between the United States and Canada. From Lake of the Woods, flow is northward via the Winnipeg River, through Lake Winnipeg, and finally drains through the Nelson River into Hudson Bay.

The total drainage area of the Rainy River Basin is 27,170 square miles. The drainage area to the outlet of Rainy Lake is 14,900 miles (i.e., upstream of International Falls). The major tributaries of the Rainy River downstream of Rainy Lake are the Big Fork River (2,060 square mile drainage area), the Little Fork River (1,850 square miles), and the Rapid River (about 700 square miles) (USGS 1981; Lindholm, Helgesen, and Ericson 1976; Helgesen, Lindholm and Ericson 1976).

Summary of Stormwater Runoff Impacts

Collection of stormwater runoff for settling or treatment mitigates against nonpoint sources of pollutants. The captured runoff from the Mill is treated in the plant's process wastewater treatment system. Runoff which does not have contact with process materials is discharged to the municipal stormwater system. Captured runoff from the process center is held for sedimentation prior to discharge to the Rainy River.

In summary, the proposed project will not alter the quantity or quality of stormwater runoff. The stormwater runoff from the Mill and process center does not now, nor will it after the project is implemented, have a significant impact on the Rainy River.

18. Water quality: wastewaters

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

Wastewater from the project will be generated from the following sources:

Process wastewater: Process wastewater is produced throughout manufacturing operations. The various waste streams are collected and treated in the Mill's wastewater treatment system before discharge to the Rainy River. The Mill discharges approximately 24 MGD of treated effluent.

Cooling water: Once-through cooling water from turbines, 10 MGD, requires no treatment.

Sanitary wastewater

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems,

discuss the suitability of site conditions for such systems.

Wastewater Treatment

The wastewater treatment plant operation and effluent discharge to the Rainy River are permitted under NPDES Permit No. MN0001643. The wastewater from the manufacturing process and stormwater collection system receives primary and secondary. Untreated wastewater first passes through a primary clarifier where suspended solids are removed. After primary clarification, the waste stream is further treated in the secondary treatment system. The Union Carbide Corporation UNOX process has been installed at the Boise Cascade mill. This system is an activated sludge process employing high-purity oxygen. The UNOX system consists of three parallel trains of four covered sequential reactors. Each reactor is mechanically agitated to achieve complete mixing. Wastewater, recycled sludge and purified oxygen are fed to the first stage, and all flow through the reactor train. Nutrients are added to the wastewater upstream of the first stage to support biological growth. Pure oxygen is manufactured onsite by a single stage cryogenic oxygen generating system. A slight positive pressure of oxygen is maintained in the reactors at all times. This ensures an efficient reaction because of high dissolved oxygen concentrations in the wastewater stream. The oxygen generator is capable of producing 100 tons/day of 98 percent pure oxygen.

Effluent from the UNOX reactors passes through two parallel secondary clarifiers to remove solids (sludge). A portion of the sludge is recycled to the activated sludge reactor; the remainder is dewatered. The dewatered sludge is either landfilled or burned in the No. 2 Power Boiler to recover energy and reduce volume. In October 2001, the mill installed a sludge drying system to enable efficient burning of all secondary sludge produced. Beneficial use of primary sludge on area agricultural lands is also being pursued to reduce the facility's reliance upon landfilling.

From the secondary clarifier, the treated wastewater passes through a foam chamber and then to the discharge diffuser in the Rainy River. The once-through cooling water is discharged to the foam chamber with the treated wastewater. The Mill outfall terminates at a submerged multiport diffuser constructed in the Rainy River.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

Sanitary Wastewater

Sanitary wastewater from the Boise Cascade International Falls Mill is discharged to the North Koochiching Sanitary Sewer Board (NKSSB) Facilities. The NKSSB serves the cities of International Falls, South International Falls, and Ranier. The current facilities have a 20-year design life and a design flow of 2.3 MGD (Bruggeman 1996). The proposed Cogeneration Project will effect no change in the mill's sanitary wastewater discharge.

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

Not Applicable

Wastewater and Cooling Water

Boise Cascade discharges wastewater through one outfall (Serial No. 030). This outfall discharges process wastewater and cooling water associated with the Mill. Approximately 10 MGD of once-through cooling water is required for operation of the steam turbines supplying the Mill. This water does not come in contact with the manufacturing processes and is discharged without treatment. Therefore, the total wastewater from the paper mill, discharged through outfall 030, is about 34 MGD. This includes treated process wastewater (24 MGD) and once-through cooling water (10 MGD).

Project Related Impacts

Wastewater Quality

The proposed Cogeneration Project will effect no change in the mill's wastewater quantity or quality.

Cooling Water

The proposed Cogeneration Project will effect no change in the mill's cooling water quantity or quality.

Sanitary Wastewater

The proposed Cogeneration Project will effect no change in the mill's sanitary wastewater quantity or quality.

Water Quality Conclusion

Rainy River water quality remains good and continues to improve (IRRWPB 1995). Effluent volume is not anticipated to increase as a result of the proposed project, and there will be no change to dilution ratio or mixing zone. The discharge will remain within the limits of Boise Cascade's NPDES Permit and well below the assimilative capacity of Rainy River. The project will not increase discharges nor will existing water quality standards or IJC recommendations be exceeded.

19. Geologic hazards and soil conditions

a. Approximate depth (in feet) to ground water:	minimum	15	average 20
to bedrock:	minimum	5	average 50

Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

Previous developments of Boise Cascade's Mill as well as test borings on Boise Cascade's property, indicate that there are no limestone formations located beneath the sites. The possibility of sinkholes is therefore assumed to be extremely low, according to Morey (1976). No soils have been identified on the site which have high infiltration rates. In addition, no records of abandoned wells at the site were found by the Minnesota Geologic Survey, according to the previous EAW (Boise Cascade 1988).

Lower Precambrian metamorphic rock underlies the project area. Test borings on Boise Cascade's property indicate that the bedrock consists of "gray to grayish green monzonite porphyry with biotite" (Braun Engineering Testing 1974). As indicated above, depth to bedrock ranges from less than 5 feet to nearly 100 feet.

Depressions in the bedrock surface have been filled by glacial deposits of clay, sandy clay, sandy silt, and traces of gravel. These materials were deposited during the Wisconsin Age, and reworked by Glacial Lake Agassiz. The resulting deposits have a high density and high unconfined compressive strength (Braun Engineering Testing 1974).

b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

The proposed project will not entail any physical alterations in the soils or geologic composition of the site. All onsite tanks are aboveground. Most of these tanks have secondary containment (either concrete dikes, or sewerage to onsite wastewater treatment plant for neutralization and dilution). It is extremely unlikely that any potential spills would reach the Rainy River or result in adverse ecological impacts. Because of the concrete dikes or indoor locations of many tanks, it is also unlikely that spills would leach through soils or impact area groundwater.

The Boise Cascade facility is located on the Rainy River, which is part of the Hudson Bay drainage system. The site and surrounding area were once part of the bed of ancient Glacial Lake Agassiz; this lake covered large parts of northern Minnesota some 7,500 years ago. These areas are characterized by flat, marshy lands.

Elevations in the project area vary by about 40 feet; elevations range from about 1,080 feet above mean sea level (MSL) along the southern shore of the Rainy River to 1,120 feet MSL on much of the plant site. The generally flat topography is interrupted by glacial moraines, which may rise about 50 feet above the surrounding terrain.

The most recent soils survey for Koochiching County dates back to 1930. Some preliminary mapping of soils has been done by the International Falls District Soil Conservation Service (SCS). The major soil types present are the Indus series (88 percent of the 76-acre Mill site) and the Clayey Udorthents (11 percent of the site).

The Indus series consist of deep, poorly and somewhat poorly drained soils, formed in clayey lacustrine sediments. They are usually found under mixed deciduous and coniferous forests on lake plains. The surface layer is 2-inch-thick black clay, while the subsurface layer is 3-inch-thick dark gray clay loam. The subsoil is dark gray and olive-gray mottled clay 18 inches thick. The substratum is olive and olive-gray clay. Slopes are

0 to 2 percent. According to the International Falls District SCS Office, most areas covered by Indus soils are used for woodland (Boise Cascade 1988). These soils have a high content of clay, a very fine texture, high shrink-swell potential, and low permeability. Building site development may be impaired by wetness problems (including drainage) because of these properties. Wetness problems could be a factor if any new building was planned; however, this project relies solely on internal modifications to the current site. No problems are expected.

The Clayey Udorthents are very steep soils, and are usually found adjacent to rivers and streams. Slopes for these soils generally range from 25 to 60 percent. These soils comprise 8.4 acres at the site and are found on the undeveloped northwest border of the site, along the Rainy River. Typically, the soils have a thin, very dark gray surface layer (1 to 3 inches thick); below this layer is a clay subsoil about 6 inches thick. The underlying material is calcareous clay. The available water capacity of these soils is moderate; the organic matter content is very low; and surface runoff is very rapid. The very steep slopes and high shrink-swell potential preclude the possibility of site development.

There are no peat deposits on the Boise Cascade property, although such deposits are found south of International Falls and other nearby areas.

20. Solid wastes, hazardous wastes, storage tanks

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

Boise Cascade will be responsible for solid waste recycling or disposal. Solid waste, such as scrap metals and electrical wiring, will be recycled through the mill's existing programs and methods. Other construction debris such as scrap wood, plastics, and packing will be disposed of at Boise Cascade's permitted Site 17 Industrial Landfill, SW-478. Construction generated solid wastes are expected to be minimal.

No hazardous waste is expected to be generated as a result of construction or operation of this project. However, if hazardous material is generated, Boise Cascade will be responsible dispose of such material according to all applicable rules and regulations. Boise Cascade is a Small-Quantity Generator of hazardous waste and this status is not expected to change as a result of the project. The facility currently generates small quantities of waste solvents, spent laboratory chemicals, and outdated process chemicals. The mill maintains a hazardous waste minimization policy and routinely works toward reducing the volume of hazardous wastes generated.

Ash generated from the combustion of wood fuel and wastewater treatment plant residuals will continue to be managed through the mill's beneficial use program as a liming agent on area agricultural lands. Alternatively, ash is permitted for disposal at the Site 17 Landfill. This project is not expected to have a significant effect on ash volumes generated.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

This project will not require the use of any additional toxic or hazardous materials.

Hazardous substances used in the pulping, bleaching, paper making and water treatment processes include alum, ammonia, chlorine dioxide, hydrochloric acid, hydrogen peroxide, methanol, phosphoric acid, sodium bisulfite, sodium hydroxide, and sulfuric acid. *These substances are not used, however, in the cogeneration process affected by the project.*

The Mill has an extensive Process Safety Management (PSM) Program which covers the following chemicals: chlorine dioxide and methanol. The program is in compliance with OSHA's regulation for Process Safety Management of Highly Hazardous Chemicals (29 CFR 1910.119). The program and plans were developed with employee participation and are periodically reviewed and updated.

The Mill also has an extensive Risk Management Plan (RMP) program which covers the same chemicals as PSM: chlorine dioxide and methanol. The program is in compliance with the EPA's regulation for Accidental Release Prevention (40 CFR Part 68). The program and plans were developed with employee participation and are periodically reviewed and updated.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

There are numerous tanks onsite. Thirty-six tanks contain petroleum products, while 27 tanks and two railcars contain hazardous chemicals necessary for the Kraft pulping and papermaking process. All tanks are aboveground and most are contained within diked areas. Tank storage capacity and chemical usage is not anticipated to change as a result of this project.

Petroleum products used onsite include lube oil, bearing oil, unleaded gasoline and diesel fuel, and transformer lubricants/coolants. Ten tanks contain lube oil (totaling about 20,000 gallons), while five contain governor and bearing oils (totaling about 2,500 gallons). The lube and bearing oils are used to lubricate machinery. Two tanks contain hydraulic oil (636 gallons total). Three tanks contain diesel fuel (5,000 gallons total). One tank holds unleaded gasoline (2,000 gallons total). The unleaded gasoline and diesel fuel are used for operation of Boise Cascade vehicles. Nineteen tanks store about 26,000 gallons of transformer oils. Transformer lubricants keep the transformers operating properly. In addition, there is one storage tank for waste oil; this tank holds 6,000 gallons.

A Spill Prevention, Control, and Countermeasure (SPCC) Plan has been prepared for the mill. This plan provides for efficient and effective response to a chemical or oil product spill. The plan describes operating procedures, countermeasure procedures and cleanup activities to prevent the entry of significant quantities of chemicals to the Rainy River. The chemicals and storage tanks covered in Boise Cascade's International Falls SPCC

Plan include ammonia, chlorine dioxide, methanol, hydrochloric acid, phosphoric acid, sodium hypochlorite, sodium bisulfite, sodium hydroxide, and sulfuric acid. According to this plan, many of the tanks are completely secondarily contained within concrete dikes. Chemicals in tanks that are not diked would, in the event of a spill, be treated at the onsite wastewater treatment plant.

21. **Traffic.** *Parking spaces added* 0 . *Existing spaces (if project involves expansion)* N/A .
Estimated total average N/A *daily traffic generated* N/A .
Estimated maximum peak hour traffic generated (if known) and time of occurrence

Provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

The proposed project does not require physical expansion of Boise Cascade facilities. The project will not generate significant additional traffic or measurably affect adjacent downtown traffic operations or travel patterns. Project construction is anticipated to last 18 months. During this period, the average number of additional, non-local, construction workers on site is expected to be about 18. The peak is expected to be 80 during the first week of May 2003. The peak traffic times will be between 6 a.m. and 7 a.m. and also between 5 p.m. and 6 p.m. The impact of these additional workers on traffic patterns is expected to be negligible.

22. **Vehicle-related air emissions.** *Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult EAW Guidelines about whether a detailed air quality analysis is needed.*

The project is not expected to generate additional traffic. Current vehicular traffic does not result in exceeding state or federal ambient air quality standards. There will be no increase in ambient traffic-related pollution, and there will be no exceeding of any state or federal ambient air quality standards as a result of this project.

23. **Stationary source air emissions.** *Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult EAW Guidelines for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.*

There will be no adverse effects on air quality as a result of this project. The Minnesota Pollution Control Agency has determined that the Cogeneration Project will not result in increased emissions from either No. 2 Boiler or the Recovery Furnace. Consequently, they have concluded, an air permit amendment is not needed. In addition, they have determined that a Prevention of Significant Deterioration (PSD) review and associated air quality analysis is not needed. Also, while electricity generated by the project may, on occasion be sold, the amount will be below the amount which would trigger applicability of the Acid Rain Program.

The #1, #3, #8 and #9 boiler are entirely fueled by natural gas. The #1 and #2 boiler are also a back up to the lime kiln for thermal oxidizing of odorous, non-condensable gases (NCGs) produced by the Kraft process. No. 2 boiler is a hog fuel fired boiler. It is fueled by bark, wood waste, and sludge. Natural gas is a back-up fuel used by the methane denox system for nitrous oxide (NOx) reduction and when the boiler is off bark for repairs or malfunctions in the bark system. The recovery furnace is fueled by both black liquor from the pulping process and natural gas. As in #2 boiler, gas is a back up fuel used when the supply of liquor is not great enough to keep the load of the boiler up or when the liquor system is down for repairs.

Emissions from these units are authorized by Air Permit No. 07100002-003, issued by the Minnesota Pollution Control Agency on October 2, 2000. The recovery boiler is currently limited by permit to a use of 1275 tons per day of black liquor solids calculated on a twelve hour block average until stack tests are completed for the recent Efficiency Improvement Project. Results from these tests are expected by the end of December. At that time the limit is expected to be increased to 1350 tons.

The #2 boiler is limited to a use of 27010 tons per month of total hog fuel on a 12 month rolling average. Of this 27010 tons, only 5193 tons per month can be sludge. No. 8 boiler is limited to 192 million BTU's/hour of natural gas input on a 12 hour average.

24. Odors, noise and dust. *Will the project generate odors, noise or dust during construction or during operation? Yes No*

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

The construction and operation of the Cogeneration Project will be entirely indoors. The fuels used in and emission characteristics of the Recovery Furnace and the No. 2 Boiler will remain the same. There will be no additional dust, odors, or ambient noise generated during construction or operation.

25. Nearby resources. Are any of the following resources on or in proximity to the site?

Archaeological, historical or architectural resources? Yes No

An EAW prepared for the Mill expansion in 1988 identified five structures on or adjacent to the Boise Cascade Mill site that are listed in a 1982 inventory of historically interesting/significant structures, as compiled by the Minnesota State Historic Preservation Office. These included the Boise Cascade office building, the research

building (located near the southern property boundary), the Insulite building, the water tower, and the dam located adjacent to the Mill site's northeastern boundary. The Insulite building and the water tower have been removed because of health and safety concerns, and to allow for the 1990 expansion.

An initial cultural resources survey of the company facilities was completed in 1993 (MN Historical Society 1995). This survey identified one structure, the Minnesota and Ontario Paper Company Office Building, as having been determined to meet the criteria of the National Register of Historic Places. The Minnesota Historical Society has recommended that if any project activities affect buildings or structures or if terrain disturbance occurs, initial surveys should be completed and issues related to preservation of cultural resources be addressed.

The proposed project at the Boise Cascade facility is not anticipated to include the construction of any new buildings or alternation of existing structures. As a result, impacts to historical or cultural resources are not expected.

Prime or unique farmlands or land within an agricultural preserve? Yes No

There are no lands currently in agricultural production on or in the vicinity of the project site in International Falls. In addition, the proposed project is not expected to involve significant new construction or changes in land use. Therefore, impacts to prime or unique farm lands are not anticipated as a result of the project.

Designated parks, recreation areas or trails? Yes No

There are presently two park areas in the vicinity of the Boise Cascade Mill site.

Smoky Bear Park is the closest park to the Mill site. This park is located across the street, along the southern perimeter of the Boise Cascade property. This small park (two blocks long and one block wide) serves as a community park, and offers tennis courts, lawn space, and a band shell. The Koochiching County Historical Museum is also located within the park.

Along the northern bank of the Rainy River in the City of Fort Frances, Ontario, is the Fort Frances Canal Park. This park is located northwest of the Boise Cascade property, on the opposite side of the river. The 15.5 acre park includes trees, open lawn areas, benches, and picnic tables for general recreational use.

Approximately 11 miles east of International Falls is Voyageurs National Park (VNP), a significant recreational area in the northern Minnesota region. This large park (218,000 acres) is Minnesota's only national park. VNP contains many freshwater lakes, which offer quality sport fishing opportunities. Freshwater fishing is considered a major recreational activity in the park. Other recreational activities offered within the park include hiking, camping, wildlife viewing, and boating. Winter activities include cross-country skiing, snowmobiling, and snowshoeing. About 250,000 park visitors take advantage of the recreational opportunities every year. Three separate visitor centers are found in the park, and several resorts in the area cater to park visitors.

Located about 50 miles east of International Falls is the western edge of the Boundary Waters Canoe Area Wilderness (BWCAW), a national wilderness area managed by the

USDA Forest Service. BWCAW is located within the Superior National Forest and stretches eastward along the northern Minnesota border nearly to Lake Superior.

The undeveloped natural condition which exists in much of VNP and BWCAW offers habitat for a wide variety of fish and wildlife species. These include walleye, northern pike, moose, black bear, and timber wolf.

Neither of the two local parks, Smokey Bear and Fort Frances, nor VNP, Superior National Forest, or BWCAW are anticipated to be impacted by the project since it will not result land use changes, significant disruption from construction or in increased emissions

Scenic views and vistas? Yes No

There are no formally designated scenic views or vistas in International Falls. The view from the bank of the Rainy River and the International Bridge includes the Boise Cascade Mill and the Stone Consolidated mill on the Canadian side of the river.

The proposed project will not include construction of any new buildings or significant changes to existing structures at the Boise Cascade Mill complex. As a result, impacts to visual aesthetics are not expected to occur as a result of the proposed project.

Other unique resources? Yes No

Other unique resources may include features which are considered rare or significant in terms of cultural, historical or community value beyond those addressed in Item 25a. through 25d.

No other such resources have been identified in the project area.

If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

Not Applicable.

26. **Visual impacts.** *Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?* Yes No
If yes, explain.

The proposed project will not result in increased atmospheric emissions and modifications to the facility will be entirely indoors. The proposed project does not include any new land use, significant new construction, or increase in external lighting.

27. **Compatibility with plans and land use regulations.** *Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?*
 Yes No. *If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.*

Previous Mill expansion activities were examined for consistency with local and regional land use or comprehensive plans in the 1997 EAW (Boise Cascade 1997). As a land use master plan does not exist at the city level, comparisons to the International Falls Zoning bylaw and Koochiching County Economic Development Strategy were made for consistency.

The Boise Cascade Mill and woodyard are within areas zoned as Heavy Industrial/manufacturing. Boise Cascade's operations at the Mill complex are consistent with this designation. Zoned land uses adjacent to the Mill and woodyard include General Commercial, Heavy Industrial, Residential, and Public Use. These include Boise Cascade facilities, residential areas, and the Smokey Bear Park. Within a 1/2-mile zone of the Mill complex the predominant land use is residential. Previous expansion activities proposed in 1988 were found to be consistent with local land use and development plans. The currently proposed project is also expected to be compatible with these plans.

28. **Impact on infrastructure and public services.** *Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? Yes No. If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see EAW Guidelines for details.)*

No new or expanded infrastructure or public services are anticipated in connection with the proposed project.

29. **Cumulative impacts.** *Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).*

a. *Are future stages of the development planned or likely? If yes, briefly describe future states, their timing, and plans for environmental review.*

No.

b. *Is this project a subsequent stage of an earlier project? If yes, briefly describe the past development, its timing, and any past environmental review.*

No.

c. *Is other development anticipated on adjacent lands or outlots? If yes, briefly describe the development and its relationship to the present project.*

No.

d. *If a, b, or c were marked yes, discuss any cumulative environmental impacts resulting from this project and the other development.*

None.

30. **Other potential environmental impacts.** *If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.*

There are no adverse environmental impacts associated with this project.

31. **Summary of issues.** *Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document, which must accompany the EAW. List any impacts and issues identified above that may require further investigation*

before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

No impacts have been identified that would require mitigation. The project mainly consists of removing two old turbines and replacing them with one new, larger capacity turbine; and rebuilding another turbine to increase its capacity also. There are no visual changes to the building where these turbines are housed.

The purpose of the project is to take advantage of steam capacity available at the plant to generate more electricity onsite (for plant use – not to sell) and be less reliant on the coal-fired local electricity provider. More natural gas will be used at this plant as a result to supply energy through conversion by cogeneration.

Logically, areas for possible concern about environmental effects would be air quality and water quality. Since this project merely changes the steam turbine generators (no air emissions involved) MPCA has determined that no air permit amendment is required. Operation with the new STGs will still be within the limits set by the current permit. Similarly, cooling water requirements are not changed significantly. No change in permitted water appropriation is necessary. Nothing about this project causes a significant change to water quality.

Furthermore, all physical changes arising from the project are within the existing structures. No visual changes to the outside, including existing lighting, will be made. Finally, there are no changes to the size, geology, topography, or boundaries of this facility.

All factors of the subsequent operation this plant, that are affected by this project, will remain within their permitted limits. Therefore there are no known impacts requiring mitigation.

RGU CERTIFICATION. The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature

Date

Title

Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at Minnesota Planning. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-296-8253, or www.mnplan.state.mn.us